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Sage Notes

Newsletter of the Idaho Native Plant Society • Promoting Interest in Idaho's Native Flora

Team Caterpillar—Forays with Idaho Botanists

By Anne Halford, Barbara Ertter, Pahove Chapter, and Leslie Goethals, (Field Assistant, California)

What happens when botanists and lepidopterists gather for two weeks of exploring the Boise Front, Owyhee Uplands, and Little Lost River Range? A whole lot of fascination and comradery about the cryptic, the beautiful, and the wonders of mutualism! The week of June 16th began the second year of documenting Lepidoptera larvae and their host plants by "Team Caterpillar" in Idaho, primarily on BLM administered lands.

The team was led by Dr. David Wagner, Professor of Ecology and Evolutionary Biology from the University of Connecticut, who specializes in caterpillars, butterflies, moths, insect conservation, and global insect decline. In addition to being the lead author on the white paper "Insect decline in the Anthropocene: Death by a thousand cuts," Wagner has authored the definitive book on caterpillars of eastern North America and is now working on its counterpart for western North America. Other members of Team Caterpillar included Wagner's postdoc Tanner Matson, master's student Alex Thornton, and field assistant Leslie Goethals from the eastern Sierra Nevada in California. A rotating selection of botanists also joined the team at different field sites, to provide identifications of the plants on which caterpillars were found (and to join in the fun!).

The opportunity to personally interact with Wagner and his crew was a particularly special treat to those of us who had been inspired by Douglas Tallamy's talks and books, since Tallamy credits Wagner as a key source for recommendations of which native plants host the most caterpillars, which in turn provide critical food for nestling birds. The Team's mission is to collect and catalog the caterpillars associated with native plants that provide propitious hosts for these species, some even new to science, and all ecologically important. The impetus for David's work is to tell the story of how amazing these species and their life histories are so that people see beyond the small, squishy, and cryptic and become instead fascinated enough to help abate their decline. Tanner is also particularly interested in the caterpillar-like larvae of sawflies (actually an unusual group of wasps), most easily distinguished from true caterpillars by the greater number of prolegs.

As a precursor to field work, Barbara Ertter arranged for David, Tanner, Alex, and Leslie to visit the Orma J. Smith Museum of Natural History at The College of Idaho, where Lepidopterist curator Paul Castrovillo introduced the visitors to extensive collections of Idaho moths and butterflies he has been curating for decades. The team also chatted with other entomological enthusiasts at the Museum and expressed their collective amazement at the holdings of this local treasure (Fig. 1).

The first field outing by Team Caterpillar, accompanied by Barbara, Anne, and Paul was to a couple of sites on the backside of the Boise Ridge, selected by Barbara on the basis of their rich diversity of native species in peak bloom. The first site was along an old

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Letter from the President

Botany is a dynamic science. Studies and discoveries in plant anatomy, biochemistry, ecology, genetics, systematics, and other disciplines continue to highlight the astonishing diversity and complexity of plants. Our knowledge of Idaho's flora is also dynamic due to ongoing discoveries. These discoveries may be recently described species from Idaho populations such as *Lomatium andrusianum* (Andrus' lomatium), *Potentilla maryae* (Mary's cinquefoil), and *Townsendia lemhiensis* (Lemhi Townsend daisy). Species such as *Isotes minima* (midget quillwort), *Nevada holmgrenii* (false candytuft), and *Paronychia sessiliflora* (nailwort) are examples of native species previously not known to occur in Idaho until recent range extension discoveries. Unfortunately, discoveries often represent non-native plant species recently arrived to Idaho such as *Galega officinalis* (goatsrue), *Hirschfeldia incana* (shortpod mustard), and *Imperata cylindrical* (cogongrass). Discovery can also include cases of species shown not to be Idaho, although previously thought to occur in the state. *Cercocarpus montanus* (birchleaf mountain-mahogany) and *Sedum rupicola* (curlleaf stonecrop) fit this category. These and other examples make it clear that a full accounting of Idaho's flora remains a moving target. I do not find this frustrating, instead it makes me smile knowing new discoveries await. And for the most part, these discoveries will be quite simple and personal. Close inspection of a favorite wildflower may reveal something not previously noticed. Or realizing what you thought was species "x" all these years is actually species "y". There is always something to learn, or to try and remember when spending time in the company of plants. As we move into the fall season, I hope this past summer provided you opportunities to learn new plants, to be excited when stumbling across an old favorite, and to share your passion for plants with family and friends. Botany is meant to be joyful.

The INPS annual meeting held this past June at Farragut State Park was a great opportunity to get a dose of joyful botany. Behind the long weekend of fun field trips, excellent speakers, and comradery, was a lot of time and effort putting it all together. I want to thank Derek Antonelli for leading the charge in organizing this year's annual meeting. Fortunately, Derek had plenty of good help with all the moving parts. Bill Asbell, Laura Asbell, Pat Bentley, Sally Gundlach, Jonalea Hanson, Lisa Houser, Jean Jostlein, Steve Love, Nancy Low, and David Noble were all part of the planning/event setup committee. Connie Antonelli, Ed Bala, Patricia Dorr, Ed Henderson, Scott Houser, Christian Jostlein, Tony Lewis, Mary McClanahan, and Sharon McNeil assisted with tasks as varied as cooking at the potluck, setting up equipment, providing a Wi-Fi hotspot for the INPS board meeting, working the registration table, and website guidance. Field trip leaders included LeAnn Abell, Derek Antonelli, Pam Brunsfeld, Jennifer Costich-Thompson, Mike Mancuso, Michelle McAnnich, Pat Meyers, Ester Monroe, Jack Nisbet, and Sabrina Seitz. I apologize if I left anyone out. Thank you all.

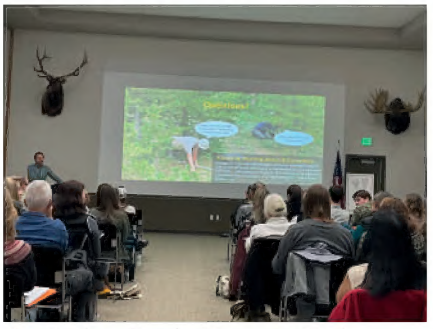
Finally, I want to take this opportunity to express a sincere thank you to Karen Getusky for her service as INPS Treasurer since 2016. Karen is stepping down from the Treasurer position, but will remain an important INPS member. Karen always gave sound financial advice to the INPS board and I fully trusted her judgement. I will miss Karen's professionalism and ready smile. INPS now needs a new Treasurer. Please contact me (president@idahonativeplants.org) if this position might be of interest to you.

Happy Fall Season,
Michael Mancuso

Announcing the 31st Idaho Rare Plant Conference

By Crista O'Conner and Elle Kramer, USFS Botanists and RPC 2025 Co-Chairs

Extra! Extra! Calling all native plant aficionados for the 31st Idaho Rare Plant Conference, to be held at Idaho Fish and Game's Southwest Regional Office in Nampa, February 25-27, 2025! Conference organizers are seeking participants interested in presenting information regarding Idaho rare plants, native plant and pollinator conservation, or related topics. Presentation formats include talks and a poster session. Volunteers are integral to the success of the conference! Interested in presenting or volunteering? Please contact Crista O'Conner (crista.oconner@usda.gov) and Elle Kramer (elizabeth.kramer@usda.gov).



Ben Legler of Rocky Mountain Herbarium, University of Wyoming, presenting "Idaho's Elusive Moonworts" at the 2023 Idaho RPC. Photo by Crista O'Conner.

Predicated on conservation for at-risk taxa, the Idaho Rare Plant Conference is hosted by the Idaho Native Plant Society and the Rare Plant Working Groups, organized with the help of state and federal agencies and private volunteers. This biennial event provides an occasion for professional botanists and native plant enthusiasts alike to enjoy talks and presentations, share information, and network—across academic, government, and private sectors. A substantial portion of the conference serves to review Rare Plant Working Group species' rankings and update the Idaho Native Plant Society Rare Plant List. The evening banquet, informal dinners, and poster session are conference highlights which create opportunities to build relationships, cultivate connections, and spark novel ideas to foster rare plant conservation in Idaho. Mark your calendars and stay tuned for more information on focused topics, speakers, and how to register! •

Anne Halford, BLM State Botanist (retired), relays botany updates during the 2023 conference. Photo by Crista O'Conner.

What to Know About our INPS Annual Meeting in 2025

By Karie Pappani, Pahove Chapter President

Three Island Crossing State Park in Glenns Ferry will be our base camp for the 2025 INPS Annual Meeting, to be held May 30-June 2. The park has 82 campsites and eight cabins. Eight of the campsites are companion sites and can hold two RVs and up to 16 people. At single sites, you can have one RV and two tents for a total of eight people. If you are willing to share a campsite with someone else from our group, so that we can all be closer to the central pavilion, please let us know when we send out more information during registration. We will reserve as many campsites as possible for everyone. The Sunrise View Pavillion Shelter will be reserved for our Friday potluck and for our main gathering spot for each of the day's field trips. Please bring a camp chair for Friday's evening festivities.

Other more civilized accommodations can be found within a half hour of Three Island Crossing State Park. The Billingsley Creek Hotel in Hagerman is an option. The Y Knot Winery has two cabins and two houses for rent. We suggest that you look into and book these other accommodations, on your own, as soon as possible.

The Y Knot Winery will be our featured location for our Saturday Dinner Banquet and Speaker Presentation. For this upcoming Annual Meeting, you will have the opportunity to visit unique and diverse habitats (sand dunes with star gazing, mountains, marshes, oolite, hot springs, hatcheries, and fossil beds) with rare plants, such as the Picabo milkvetch, and other interesting plants like Shockley's wild buckwheat.

THE
PAHOVE CHAPTER
HOSTS OUR
ANNUAL
MEETING
MAY 30-JUNE 2
2025
BASED OUT OF THREE ISLAND CROSSING
WITH FIELD TRIPS TO:
BENNETT HILLS | CENTENNIAL MARSH | BRUNEAU DUNES
| HAGERMAN FOSSIL BEDS & BEYOND | HOT SPRINGS
MORE DETAILS TO COME · SAVE THE DATE ON YOUR CALENDARS!

Mark your calendars and join us in 2025! •

Team Caterpiller *Continued from Page 1...*

Figure 1. Team Caterpillar. From left to right; Paul Castrovillo, David Wagner, Tanner Matson, Leslie Goethals, and Alex Thornton. Photo by Barbara Ertter.

road into the Wildlife Management Area overlooking the Mores Creek arm of Lucky Peak Reservoir (the destination of a recent wildflower walk by the Pahove Chapter by INPS) (Fig. 2). Just like with botanists, it took us well over an hour to walk less than a quarter mile as David and crew scoured bitterbrush (*Purshia tridentata*), Rocky Mountain maple (*Acer glabrum*), serviceberry (*Amelanchier*), rabbitbrush (*Ericameria nauseosa*), and chokecherry (*Prunus virginiana*) to find larvae. It turns out that caterpillar-hunting consists of literally "beating the bushes" with a baton, knocking any larvae and other lurk-

Figure 2. Learning the caterpillars from left to right: Anne Halford, Leslie Goethals, David Wagner, Alex Thornton and Paul Castrovillo. Photo by Barbara Ertter.

ing insects into beating sheets consisting of a white cloth stretched out of a circular or rectangular frame (Fig. 3). Additional important accouterments included nets, hand lenses and enthusiasm for the day's discoveries, such as the beautiful, freshly emerged Pacific spiketail dragonfly (*Cordulegastor dorsalis*), netted and released by Paul. The parsnip buckwheat (*Eriogonum heracleoides*) and sulphur buckwheat (*E. umbellatum*) were covered with Melissa Blue butterflies (*Plebejus melissa*), distinguished by orange and metallic blue on the hindwing as described by Paul. The beating sheets were abundant with larvae—not all yet identified, but some replete with vibrant colors, bristles, and other strange appendages like the Sheep Moth larvae (*Hemileuca* sp.) whose spines are poisonous, but equally stunning (Fig. 4).

It was time to keep moving before the afternoon heat so Barbara took the crew to Pine Creek south of Grimes Creek, where we could explore the riparian vegetation in the shade of a conifer forest. Larvae searches were particularly productive on Scouler's willow (*Salix scouleriana*), mallowleaf ninebark (*Physocarpus malvaceus*), creek dogwood (*Cornus sericea*), blue elderberry (*Sambucus cerulea*), and, on the adjacent slopes, snowbrush (*Ceanothus velutinus*); alumroot (*Heuchera grosulariifolia*) and other herbaceous plants yielded additional treasures. Barbara was also rewarded with some new botanical records for her Boise Front flora (https://boisefrontnature.com/), notably elegant cat's-ear (*Calochortus elegans*) and baldhip rose (*Rosa gymnocarpa*), both well south of the nearest previous documented populations. The day ended for most of us enjoying a meal on the Grove Plaza, but David and Tanner decided to squeeze in a quick trip afterwards to Bogus Basin, hoping to find a certain larva on ballhead waterleaf (*Hydrophyllum capitatum*).

Figure 3. Alex Thornton positioning a beating net on parsnip buckwheat (Eriogonum heracleoides). Photo by Anne Halford.

The next day Team Caterpillar and Anne, this time accompanied by botanist Beth Corbin, journeyed to our first BLM collection spot, Shoofly Oolite Interpretive Trail in Owyhee County, where lots of new plants were seen including prince's plume (*Stanleya pinnata*), gray horsebrush (*Tetradymia canescens*), spiny horsebrush (*T. spinescens*), spiny hopsage (*Grayia spinosa*), and little-leaved brickellbush (*Brickellia microphylla*). After a shady lunch beneath the black cottonwoods at Poison Creek and a quick explore across to the diverse native bunchgrass slopes, we headed to the BLM Mud Flat Field Station. Around the last bend before the station the road turned a copper-brown and began undulating—not an earthquake, but thousands of Mormon crickets. What better greeting committee for a group of entomologists! Upon arrival at the bunk house student interns for the project—Oliver Malatich (University of South Carolina) and Owen Brown (Stanford University)—joined us. Also staying there were Mormon cricket researchers Ellen Welti from the Smithsonian Institute and graduate student Calla Sopko, as well as Moira Robinson

Figure 4. Sheep Moth larvae (Hemileuca sp.) Photo by Leslie Goethals.

Figure 5. Emerald Moth (Nemoria sp.) Photo by Leslie Goethals.

from the Utah State University whose research focuses on *Lepidoptera* hosting on rabbitbrush species. The evening was filled with taking the tent rainflies on and off and shooing masses of Mormon Crickets to "roost" somewhere else, all while the researchers were preparing for an evening of moth sleuthing with black lights and draped sheets adorning the outside of the field station. A stunning array of moths appeared like Christmas presents on the sheet in the early morning, to the delight of everyone (Figs. 5 and 6). Forays off Mud Flat Road and up to Silver City the next several days were equally fruitful, and links to iNaturalist posts are streaming in via Team Caterpillar iNaturalist handles: Tanner Matson, Alex Thornton, Oliver Malatich, Owen Brown, and Leslie Goethals.

Figure 6. Shaded Granite Moth (Digrammia curvata). Photo by Leslie Goethals.

After several days in Owyhee County, David and Tanner briefly returned to Boise, so that Tanner could return to Connecticut and resume his scholarly obligations. Before leaving, however, they joined Barbara for another attempt to find specific larvae at Bogus Basin, concentrating their efforts near the base of the Bitterroot and Superior chairlifts. Again no luck locating the target species on *Hydrophyllum*, but sufficient other entomological and botanical treasures were found to justify the trip. Barbara was particularly happy to confirm the only known populations of northern white violet (*Viola macloskeyi*) and small shinleaf (*Pyrola minor*) on the Boise Ridge.

Figure 7. Michael Mancuso and David Wagner. Photo by Leslie Goethals.

Ahead of Team Caterpillar's visit to Idaho, Anne had also arranged for botanist Michael Mancuso and native bee ecologist Jim Cane to meet up with the team at their next destination, the BLM Clyde Field Station in the Little Lost River Valley, to assist with plant identification and learn more about Idaho's native bees (Figs. 7 and 8). The crew explored the area around the field station and up various surrounding canyons to document all things insect and of course their plant associations. The week ended with an enormous array of sightings and focused collections—about 20 species that had never been imaged before or had aspects of their life history revealed, as well as 1500–2000 macrophotographic images, more than 50 taxa in a DNA barcoding pipeline, and over 100 iNaturalist posts. Wagner suspects they will have close to one thousand iNaturalist posts by the end of summer, along with specimen vouchers for hundreds of the moths (Fig. 9).

Figure 8. Alex Thornton and Jim Cane. Photo by Leslie Goethals.

Figure 9. From left to right: Owen Brown and Oliver Malatich taking host plant notes. Photo by Leslie Goethals.

Beyond the extensive finds and lots of rigorous hours of preserving and photographing the specimens late into the early morning hours of every day (Fig. 10), Team Caterpillar brought us not only a great deal of new knowledge, but new connections and comradery as well. A wonderful dinner hosted by the Halfords on Team Caterpillar's last evening in Idaho helped cement these connections and allowed additional local botanists and BLM representatives to meet David Wagner and his team. We look forward to their intended return next year!

Figure 10. From left to right: Oliver, David, and Alex processing caterpillar larvae. Photo by Leslie Goethals.

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2024 Annual Meeting Report

By Derek Antonelli, Calypso Chapter President

The 2024 Idaho Native Plant Society's Annual Meeting was held from June 14 to 16 at Farragut State Park that overlooks beautiful Lake Pend Oreille in Northern Idaho. Ninety-two members and guests were in attendance. The main gathering place for the event was Farragut's Thimbleberry Group Campsite. Many attendees stayed at the group campsite and all of the field trips departed from this location.

Friday evening's potluck was held at the group campsite. The Calypso Chapter put hamburgers and hot dogs on the grill and everybody brought their favorite dish to share. It was an excellent opportunity to catch up with friends from around the state and to meet many new friends.

Friday evening's potluck spread. Photo by Nancy Miller.

Our two outstanding potluck chefs—Ed Bala (left) and Bill Asbell (right) with Ray Corbin (center) providing advice. Photo by Nancy Miller.

Immediately following the potluck, Pat Meyers (Idaho Master Naturalist and member of the Coeur du Deluge Chapter, Ice Age Floods Institute) gave a talk on the Ice Age Floods that originated at the current site of Lake Pend Oreille. The continental glaciers pushed as far south as Lake Pend Oreille and created an ice dam backing water up all the way to Butte, Montana. The ice dam eventually collapsed releasing a wall of water that scoured scablands all the way to the Pacific Ocean. This was repeated many times. Pat only had one day to prepare for this talk as the originally scheduled speaker took ill. He did a masterful job.

Crowd gathered to hear Pat Meyer's talk on Ice Age floods. Photo by Nancy Miller.

Sixteen field trips were held during the day on Saturday and Sunday. Many of the field trips on Saturday were met by rain. Everyone soldiered on and had a great time. The rain storms made for more impressive post-field trip stories. Besides, you can't have rain forests without the rain.

Saturday morning and afternoon Ice Age driving tours looked at the local evidence of the post-glacial flooding. During the morning tour with the rains pouring down, the group ingeniously set up a cell phone telephone conference so participants could hear about evidence without having to get out of the vehicles. Pat Meyers led the morning tour but was unable to cover the afternoon tour. Some of the participants in the morning tour took notes so they could lead the afternoon tour.

Ice Age Driving Tour stopped to look at a glacial erratic. Photo by Alice Crockett.

Botanist LeAnn Abell of the Bureau of Land Management led a hike on the Blue Creek Bay Recreation Site found along Lake Coeur d'Alene. Some of the group taking part in this hike ended up at the wrong trailhead. Some might suggest that the author of this article passed out the

wrong map. This was never confirmed! All worked out well as the correct trailhead was only a short distance away. At the start of the walk, the weather looked ominous. After a little rain, a little hail, some wind, and a thunder clap or two, the day turned out reasonably nice. The group saw many plants in a variety of habitats.

Noted Spokane author and naturalist, Jack Nisbet, gave a talk and walk at the homestead site for John Leiberg and Carrie Marvin on Saturday morning and again in the afternoon. Heavy rains and hail temporarily disrupted this field trip but the group was able to take cover in a nearby shelter.

Spokane author, Jack Nisbet, explaining details about the Leiberg homesite. Photo by Nancy Miller.

Derek Antonelli led field trips both Saturday and Sunday on the Beauty Creek Loop of trails near Lake Coeur d'Alene. This was the most challenging hike with a vertical gain of about 1800 feet and 6.5 miles of trail. The most serious plant geeks seemed to be drawn to this hike. We added 34 new plants to the area's plant list bringing the total number of species to nearly 200.

The group that completed the Beauty Creek Loop on Saturday. Photo taken by passing cyclist with Beth Corbin's camera.

Pam Brunsfeld (Saturday) and Mike Mancuso (Sunday) led groups on a hike along the trails on Rathdrum Mountain. These trails passed through a rain forest dominated by western red cedar (*Thuja plicata*) and western hemlock (*Tsuga heterophylla*). Each group was lucky enough to find the rare, stark-white phantom orchid (*Cephalanthera austiniae*).

Local herbalists shared their medicinal plant knowledge with participants during field trips conducted Saturday and Sunday mornings and afternoons at Farragut State Park. These were led by Michelle McAninch, Esther Monroe, and Sabrina Seitz. The participants learned many terms and the steps needed for processing plant materials including: hydrosol, tincture, infusion, salve, and poultice.

Jennifer Costich-Thompson, a US Forest Service botanist, led Sunday's field trip to Lost Lake and followed up with a walk along the Mineral Point Trail overlooking the spectacular Lake Pend Oreille. The hikes passed through both moist and dry forest types—each with a different assemblage of native plants.

On Sunday, Pam Brunsfeld led morning and afternoon hikes on the Buttonhook Loop on Farragut State Park. The hillside along Buttonhook Bay provides a different habitat than those found on any of the other hikes and

On the trail at Rathdrum Mountain Park. Photo by David Noble.

sported a unique assemblage of plant species. The groups were able to see the rare purple meadowrue (*Thalictrum dasycarpum*).

Our field trips would not have been possible without the capable leaders who stepped forward to help out. A big thank you to our many leaders—LeAnn Abell, Derek Antonelli, Pam Brunsfeld, Jennifer Costich-Thompson, Mike Mancuso, Michelle McAninch, Pat Meyers, Esther Monroe, Jack Nisbet, and Sabrina Seitz. Also a big thanks

Herbalist Sabrina Seitz demonstrating her hydrosol still used to distill the essences from native plants. Photo by David Noble.

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2024 Annual Meeting Report *Continued from Page 7...*

to our many field trip guides who assisted the leaders on the field trip.

The Lost Lake/Mineral Point field trip passed through both moist and dry forests. Here Jennifer Costich-Thompson is discussing the western red cedar that is characteristic of our inland temperate rainforests. Photo by Jonalea Hanson.

The walk along the Mineral Point Trail provided spectacular views of Lake Pend Oreille. Photo by Jonalea Hanson.

Saturday evening we had our banquet, annual business meeting, and keynote talk. We rented the Athol Community Building for our banquet. Our meal was catered by Olive Garden with plenty of food for everyone. The leftovers were given to the Salvation Army which provided support for three local families. The business meeting was short. The main item of business was electing officers to replace those with expiring terms. Unanimously, Steve Love was re-elected to serve another term as vice president. The society is still looking for a new treasurer to replace Karen Getusky. Thank you Steve for stepping forward to serve. And thank you Karen for many years of outstanding service. Author Jack Nisbet gave the keynote talk based on his book "The Doctor and the Dreamer." His talk covered the influence of early plant collector John Leiberg and his pioneer doctor partner Carrie Marvin. Leiberg's plant surveys in the 1890s were instrumental in the formation of the area's National Forests that are still in place today.

The Olive Garden catered the meal at the Annual Meeting banquet. Photo by Nancy Miller.

Group led by Pam Brunsfeld stops to check out the history of Buttonhook Bay. Photo provided by Pam Brunsfeld.

Everyone who came to the 2024 INPS Annual Meeting had a great time, met old friends and made new friends, and saw many fascinating native plants. The Pahove (Boise) Chapter will host the 2025 INPS Annual Meeting. It also promises to be a great time with many fascinating, but completely different, native plants. The 2025 meeting will be based out of Three Island Crossing near Glenns Ferry from Friday, May 30, to Sunday, June 2, 2025. Please save the dates and plan to join us next summer. •

Author Jack Nisbet gave the keynote talk based on his book "The Doctor and the Dreamer". Photo by Nancy Miller.

Fish and Game's Southwest Region Office Native Plant Garden

Article and Photos by Brad Lowe, IDFG Regional Habitat Manager

In June 2019, the Idaho Department of Fish and Game's (IDFG) Southwest Region Office moved from its previous home, off Poleline Road in Nampa, Idaho, (immediately adjacent to Wilson Ponds), to an expanded location at North Gate Boulevard in Nampa, sandwiched between Amazon and Walmart. Construction of the facility included minimalistic landscaping with a few trees in the parking lot, some small shrubs around parts of the building and parking lot, and the rest planted into grass. Also, in front of the building was a large electrical box that was not only unsightly, but as the years progressed, had begun to settle with the amount of irrigation it was receiving.

IDFG does a great deal of work to educate the community and passersby on topics involving wildlife, not least of which is the habitat upon which wildlife rely. One of the advantages of the Poleline Road location was a plethora of plants near the office that could be used as an educational tool for school groups or interested individuals. Unfortunately, that was no longer possible at the new location.

With a sinking power connection, lack of educational opportunities, and a staff that severely missed the benefits of more diverse vegetation out the window, a committee of 10 IDFG employees reviewed literature, consulted with native plant material experts, toured local native, xeric, and firewise gardens, and developed general design ideas for all of the turf areas at the IDFG Southwest Region Office. The committee chose the turf area adjacent to the main entrance as the highest priority for conversion to native landscaping. There, the committee envisioned a garden of four native habitats. This visible and easily accessible outdoor space would allow the public to view, appreciate, and learn about the native plants, pollinators, and wildlife habitats of Southwest Idaho.

In spring 2021, the committee worked with Kelly Smith, a horticulture student at College of Western Idaho, who designed our native habitat and pollinator garden as her 'Business Practicum'. We met with her to discuss ideas and provided her with plant lists and literature on using natives in landscaping. She developed a professional-grade design, plant key, scope of work for installation, and list of species with sources for all (some as plants, some as seeds). Her design includes about 75 species and 2,496 individual plants. It is designed for year-round structural appeal and color throughout the growing season. It features four geographic regions: Snake River Plain, Boise Foothills, Owyhee Uplands, and Craters of the Moon. The native plants of these regions are well-suited to the hot, dry summers and cold winters in Nampa.

Using the products Kelly developed, the project was put out for bid in the winter of 2021/2022 and construction began in spring 2022. Though there were several hurdles along the way, the project is now complete. Although what garden project is ever "complete"? We continue to add to the garden, having just constructed a split rail fence along portions of the garden and have constantly added plants.

In 2022, as the project was coming along, we submitted a grant application to the Idaho Native Plant Society's Education, Research, and Inventory Grant (ERIG) program in the hopes of adding elements to the garden that would assist in our mission to educate citizens. We were successful in obtaining a $1,000 grant which has paid for a large welcome sign, interpretive signs in each of the four geographic regions, and individual plant labels (we used the plethora of shot up aluminum signs that we had amassed, cut them up, and affixed vinyl stickers to make the labels).

We invite you to come out and take a look at the new garden. As the plants mature, it will continue to look better. Even now, though, the garden almost always has something blooming and there's usually hummingbirds, butterflies, bumble bees, quail, killdeer, or doves flitting about. •

Annual Meeting: Rathdrum Mountain Field Trip

By Michael Mancuso and Crista O'Conner, Pahove Chapter

Group photo taken back at the trailhead parking lot. Photo taken by a passer-by using Crista's camera.

Attendees at this year's INPS annual meeting had a menu of excellent field trip choices. One of these choices was a visit to Rathdrum Mountain, which rises out of the Rathdrum Prairie a couple miles northwest of the city of Rathdrum, Idaho. Underlain by deep gravels deposited during multiple catastrophic flood releases from Pleistocene glacial Lake Missoula, the Rathdrum Prairie is located less than 50 miles downstream from where the Clark Fork River ice dam formed. The last failure of this dam occurred roughly 12,000 years ago, with once again nearly unfathomable volumes of water racing toward the sea. The uplands of Rathdrum Mountain contain periglacial deposits that range from gravelly sands to cobbles and boulders. Conifer forest plant communities dominate the vegetation on the mountain.

Our field trip started on the morning of July 16th and followed part of the Storm King trails network. Being familiar with the trail system, Connie Antonelli and Pat Bently guided us during the field trip, ensuring that we returned to our vehicles with the same number of people who departed a few hours earlier. We all brought rain jackets to appease the weather gods. It worked, as we stayed dry the entire hike; unlike folks on this same field trip the previous day. Our route passed through closed to open canopy forest, aspen patches, meadow-like openings, roadside embankments, and even a wet creek bottom adjacent to a Frisbee golf course hole. Variations in slope, aspect, and disturbance histories amplified the habitat diversity. Even so, the overall floral diversity was surprising. Crista O'Conner diligently kept a running tally of all the plants she or others encountered during the field trip. By the time we arrived back at the trailhead parking lot, Crista's list numbered 164 vascular plant species, including 12 tree, 26 shrub, 98 forb, 23 graminoid, and five fern taxa (Table 1). Impressive! Asteraceae (aster family) led the way with 22 species, followed by Rosaceae (rose family) with 18 species, and the Poaceae (grass family) with 16 species. Natives dominated the list, but 40 (24%) represented introduced (*) species. The day's tally also included five moss and three lichen taxa. We also spent time admiring quite a few snail, insect, and other invertebrate species during the several mile hike.

Twelve people participated in the field trip, including Ilene Altman, Connie Antonelli, Pat Bentley, Alan Crockett, Alice Crockett, Peggy Faith, Kristin Fletcher, Alma Hanson, Michael Mancuso, Crista O'Conner, Alan Steele, and Shawn Taylor. We thank them all for sharing a fun day of botany on Rathdrum Mountain. •

Table 1. Plant Species list for Rathdrum Mountain field trip July 16, 2024.

Scientific name	Common name	Plant family	Scientific name	Common name	Plant family
Trees			*Holodiscus discolor*	Oceanspray	Rosaceae
Abies grandis	Grand fir	Pinaceae	*Lonicera ciliosa*	Orange honeysuckle	Caprifoliaceae
Alnus rubra	Red alder	Betulaceae	*Lonicera utahensis*	Utah honeysuckle	Caprifoliaceae
Betula papyrifera	Paper birch	Betulaceae	*Malus* sp.*	Apple sp.	Rosaceae
Larix occidentalis	Western larch	Pinaceae	*Philadelphus lewisii*	Lewis' mock orange	Hydrangeaceae
Pinus ponderosa	Ponderosa pine	Pinaceae	*Physocarpus malvaceus*	Mallow ninebark	Rosaceae
Pinus monticola	Western white pine	Pinaceae	*Prunus virginiana*	chokecherry	Rosaceae
Populus trichocarpa	Black cottonwood	Salicaceae	*Prunus emarginata*	Bitter cherry	Rosaceae
Populus tremuloides	Quaking aspen	Salicaceae	*Ribes lacustre*	Prickly currant	Grossulariaceae
Pseudotsuga menziesii	Douglas fir	Pinaceae	*Rosa gymnocarpa*	Dwarf rose	Rosaceae
Taxus brevifolia	Pacific Yew	Taxaceae	*Rosa woodsii*	Wood's rose	Rosaceae
Thuja plicata	Western redcedar	Cupressaceae	*Rubus parviflorus*	Thimbleberry	Rosaceae
Tsuga heterophylla	Western hemlock	Pinaceae	*Rubus idaeus*	Red raspberry	Rosaceae
Shrubs			*Salix scouleriana*	Scouler's willow	Salicaceae
Acer glabrum	Rocky Mountain maple	Sapindaceae	*Sambucus cerulea*	Blue elderberry	Adoxaceae
Alnus viridis	Green alder	Betulaceae	*Sambucus racemosa*	Red elderberry	Adoxaceae
Amelanchier alnifolia	Serviceberry	Rosaceae	*Sorbus scopulina*	Cascade mountain ash	Rosaceae
Berberis repens	Creeping barberry	Berberidaceae	*Spiraea betulifolia*	White spiraea	Rosaceae
Ceanothus sanguineus	Redstem ceanothus	Rhamnaceae	*Symphoricarpos albus*	Common snowberry	Caprifoliaceae
Frangula purshiana	Cascara buckthorn	Rhamnaceae	*Vaccinium membranaceum*	Mountain huckleberry	Ericaceae

Scientific name	Common name	Plant family
Forbs		
Achillea millefolium	Common yarrow	Asteraceae
Actaea rubra	Red baneberry	Ranunculaceae
Adenocaulon bicolor	American trailplant	Asteraceae
Anaphalis margaritacea	Pearly everlasting	Asteraceae
Anemone piperi	Piper's anemone	Ranunculaceae
Apocynum androsaemifolium	Spreading dogbane	Apocynaceae
*Arctium minus**	Common burdock	Asteraceae
Arnica cordifolia	Heartleaf arnica	Asteraceae
Artemisia sp.	Wormwood sp.	Asteraceae
Asarum caudatum	Western wild ginger	Aristolochiaceae
Astragalus sp.	Milkvetch sp.	Fabaceae
Calochortus apiculatis	Baker mariposa lily	Liliaceae
Castilleja sp.	Paintbrush sp.	Orobanchaceae
*Centaurea stoebe**	Spotted knapweed	Asteraceae
Cephalanthera austiniae	Phantom orchid	Orchidaceae
Chamerion angustifolium	Fireweed	Onagraceae
Circaea alpina	Enchanter's-nightshade	Onagraceae
*Cirsium arvense**	Canada thistle	Asteraceae
Claytonia lanceolata	Lanceleaf springbeauty	Montiaceae
Claytonia perfoliata	Miner's lettuce	Montiaceae
Clematis columbianum	Rock clematis	Ranunculaceae
Clinopodium douglasii	Yerba Buena	Lamiaceae
Clintonia uniflora	Beadlily	Liliaceae
Collinsia parviflora	Maiden blue eyed Mary	Plantaginaceae
Coptis occidentalis	Idaho goldenthread	Ranunculaceae
Corallorhiza maculata	Spotted coralroot	Orchidaceae
*Cynoglossum officinale**	Houndstongue	Boraginaceae
Drymocallis sp.	Cinquefoil	Rosaceae
Eurybia conspicua	Western showy aster	Asteraceae
Fragaria vesca	Woodland strawberry	Rosaceae
Fragaria virginiana	Virginia strawberry	Rosaceae
Galium triflorum	Fragrant bedstraw	Rubiaceae
Galium aparine	Cleavers	Rubiaceae
*Geranium carolinianum**	Carolina geranium	Geraniaceae
Geum macrophyllum	Large-leaf avens	Rosaceae
Goodyera oblongifolia	W. rattlesnake plantain	Orchidaceae
Heuchera sp.	Alumroot sp.	Saxifragaceae
Hieracium albertinum	Western hawkweed	Asteraceae
*Hieracium caespitosum**	Meadow hawkweed	Asteraceae
*Hypericum perfoliatum**	St. John's wort	Hypericaeae
Lactuca biennis	Tall blue lettuce	Asteraceae
*Lactuca serriola**	Prickly lettuce	Asteraceae
*Lepidium campestre**	Field pepperwort	Brassicaceae
*Leucanthemum vulgare**	Oxeye daisy	Asteraceae
*Linaria dalmatica**	Dalmatian toadflax	Plantaginaceae
Linnaea borealis	Twinflower	Linnaeaceae
Lomatium triternatum	Nine-leaf biscuitroot	Apiaceae
Lysichiton americanus	Western skunk cabbage	Araceae
Maianthemum stellatum	Starry false Solomon's seal	Asparagaceae
Maianthemum racemosum	False Solomon's seal	Asparagaceae
*Matricaria discoidea**	Pineappleweed	Asteraceae
*Medicago lupulina**	Black medic	Fabaceae
Mertensia paniculatum	Tall bluebells	Boraginaceae
Microsteris gracilis	Slender phlox	Polemoniaceae
Mitella stauropetala	Smallflower mitrewort	Saxifragaceae
Mitella caulescens	Leafy mitrewort	Saxifragaceae
Moehringia macrophylla	Large-leaved sandwort	Caryophyllaceae
*Mycelis muralis**	Wall lettuce	Asteraceae
*Nepeta cataria**	Catnip	Lamiaceae
Osmorhiza berteroi	Mountain sweet cicely	Apiaceae
Pedicularis bracteosa	Bracted lousewort	Orobanchaceae
Phlox speciosa	Showy phlox	Polemoniaceae
*Plantago lanceolata**	Narrowleaf plantain	Plantaginaceae
*Plantago major**	Broadleaf plantain	Plantaginaceae
Platanthera sp.	Bog orchid sp.	Orchidaceae
*Potentilla recta**	Sulphur cinquefoil	Rosaceae
Poteridium annuum	Prairie burnet	Rosaceae
Prosartes trachycarpa	Rough-fruited fairybell	Liliaceae
Prosartes hookeri	Hooker's fairybell	Liliaceae
Prunella vulgaris	Selfheal	Lamiaceae
Ranunculus uncinatus	Woodland buttercup	Ranunculaceae
*Rumex obtusifolius**	Bitter dock	Polygonaceae
*Rumex acetosella**	Sheep sorrel	Polygonaceae
Sedum stenopetalum	Wormleaf stonecrop	Crassulaceae
Senecio integerrimus	Western ragwort	Asteraceae
Silene menziesii	Menzies' catchfly	Caryophyllaceae
Solidago sp.	Goldenrod sp.	Asteraceae
*Stellaria media**	Common chickweed	Caryophyllaceae
Streptopus amplexifolius	Clasping twistedstalk	Liliaceae
*Tanacetum vulgare**	Common tansy	Asteraceae
*Taraxicum officinale**	Common dandelion	Asteraceae
*Taraxicum eurythospermum**	Red-seeded dandelion	Asteraceae
Thalictrum occidentale	Western meadowrue	Ranunculaceae
Tiarella trifoliata	Threeleaf foamflower	Saxifragaceae
*Tragopogon dubius**	Yellow salsify	Asteraceae
Trautvetteria caroliniensis	Carolina bugbane	Ranunculaceae
*Trifolium repens**	White clover	Fabaceae
*Trifolium pratense**	Red clover	Fabaceae
*Trifolium aureum**	Golden clover	Fabaceae
Trillium ovatum	Pacific trillium	Melanthiaceae
Triteleia grandiflora	Large-flower triteleia	Asparagaceae
Turritus glabra	Tower rockcress	Brassacaceae
Urtica dioica	Stinging nettle	Urticaceae
*Verbascum thapsus**	Smooth mullein	Scrophulariaceae
Veronica serpyllifolia	Thyme-leaved speedwell	Plantaginaceae
*Veronica verna**	Spring speedwell	Plantaginaceae
*Vicia villosa**	Hairy vetch	Fabaceae
Viola glabella	Stream violoet	Violaceae
Graminoids		
Bromus marginatus	Mountain brome	Poaceae
*Bromus tectorum**	Cheatgrass	Poaceae
Bromus vulgaris	Columbia brome	Poaceae
*Bromus inermis**	Smooth brome	Poaceae
*Bromus japonicus**	Japanese brome	Poaceae
Calamagrostis rubescens	Pinegrass	Poaceae
Carex rossii	Ross' sedge	Cyperaceae
Carex spp.	Sedge spp.	Cyperaceae
Carex concinnoides	Northwestern sedge	Cyperaceae
Carex deweyana	Dewey's sedge	Cyperaceae
*Dactylis glomerata**	Orchard grass	Poaceae
Deschampsia danthoides	Annual hairgrass	Poaceae
Elymus glaucus	Blue wildrye	Poaceae
Festuca idahoensis	Idaho fescue	Poaceae
Juncus sp.	Rush sp.	Juncaceae
Luzula multiflora	Common woodrush	Juncaceae
Luzula parviflora	Smallflower woodrush	Juncaceae
*Phalaris arundinacea**	Reed canarygrass	Poaceae
*Phleum pratense**	Common timothy	Poaceae
*Poa bulbosa**	Bulbous bluegrass	Poaceae
Poa spp.	Bluegrass spp.	Poaceae
*Thinopyrum intermedium**	Intermediate wheatgrass	Poaceae
Vulpia sp.	Annual fescue sp.	Poaceae
Ferns		
Athyrium filix-femina	Common ladyfern	Athyriaceae
Cystopteris fragilis	Brittle bladder fern	Cystopteridaceae
Polystichum munitum	Western swordfern	Dryopteridaceae
Polystichum lonchitis	Mountain hollyfern	Dryopteridaceae
Pteridium aquilinum	Western brackenfern	Dennstaedtiaceae
Mosses		
Dicranium tauricum	Fragile fork-moss	Dicranaceae
Mnium sp.	Calcareous moss sp.	Mniaceae
Orthotrichum sp.	Bristle moss sp.	Orthotrichaceae
Polytrichum juniperinum	Juniper haircap moss	Polytrichaceae
Rhytidiopsis robusta	Pipecleaner moss	Hylocomiaceae
Lichens		
Cladonia spp.	Pixie cup	Cladoniaceae
Hypogymnium sp.	Tube lichen	Parmeliaceae
Peltigera sp	Felt lichen	Peltigacaeae

* *Introduced species.*

Plant Survey at Craters of the Moon National Monument & Preserve

By Michael Mancuso, Pahove Chapter and Kristin Kaser, INPS Member

Established in 1924, Craters of the Moon National Monument celebrated its 100th anniversary on May 2, 2024. Sara Ihrie, Vegetation Program Lead for Craters of the Moon National Monument and Preserve, invited the Idaho Native Plant Society to assist on a plant survey in anticipation of a construction project to expand a facilities complex located a short distance east of the Lava Flow Campground. On June 20, 2024, INPS members Kristin Kaser and Michael Mancuso joined Sara and another Craters of the Moon Vegetation team employee, Matthew Gorentz, to conduct the survey. A set of previously laid out pinflags delineated the boundaries of an approximately 4-acre survey area. The survey targeted species on both the Idaho Rare Plant List and the Idaho noxious weed list, but we also compiled a list of all plant species observed within the search area. We conducted the survey by walking a series of meandering transects within the delineated area.

Vegetation in the survey area supported shrub-steppe vegetation dominated by an antelope bitterbrush/Sandberg bluegrass (*Purshia tridentata/Poa secunda*) community type with interspersed clumps or individual limber pine. *Artemisia tridentata* ssp. *vaseyana* (mountain big sagebrush) co-occurred in a few spots, but was a less consistent associate than gray rabbitbrush (*Ericameria nauseosa*). Silverleaf phacelia (*Phacelia hastata*) appeared to be the most common forb, with western needlegrass (*Achnatherum occidentale*), hot-rock penstemon (*Penstemon deustus*), and turpentine spring-parsley (*Cymopterus terebinthus*) being other relatively common native species. Cheatgrass (*Bromus tectorum*) was widespread, but never had dense cover. The survey zone also contained patches of sparsely vegetated cinder, where Craters of the Moon buckwheat (*Eriogonum ovalifolium* var. *focarium*) was the most abundant species. The white wooly leaves of this mat-forming perennial form a showy contrast against the black cinders.

We also surveyed an adjoining, approximately 2-acre area due to its possible inclusion in the planned expansion project. An antelope bitterbrush/bluebunch wheatgrass (*Purshia tridentata/Pseudoroegneria spicata*) community type dominated the vegetation in this area, but otherwise it contained most of the same species observed in the primary survey zone, including interspersed limber pine.

Overall, we tallied 49 vascular plants and 2 moss species (Table 1). Craters of the Moon buckwheat was the only species on the Idaho Rare Plant List that we encountered. Although locally common in the northern portion of the Monument, this species has not been documented outside the Monument/Preserve boundary. A single rush skeletonweed (*Chondrilla juncea*) was the only noxious weed species observed. Many of the limber pine in the survey

Table 1. Botanical survey plant list. Taxonomy follows Flora of the Pacific Northwest, 2nd edition (except mosses).

Scientific name	Common name	Scientific name	Common name
Trees		*Drymocallis glandulosa*	Sticky cinquefoil
Pinus flexilis	Limber pine	*Eriogonum heracleoides*	Wyeth's buckwheat
Shrubs		*Eriogonum ovalifolium* var. *focarium*	Craters of the Moon buckwheat
Amelanchier utahensis	Utah serviceberry	*Eriogonum ovalifolium* var. *ovalifolium*	Cushion buckwheat
Artemisia tridentata ssp. *vaseyana*	Mountain big sagebrush	*Eriogonum umbellatum*	Sulphur buckwheat
Chamaebatiaria millefolium	Fern-bush	*Eriogonum vimineum*	Broom buckwheat
Ericameria nana	Dwarf goldenbush	*Gayophytum* sp.	Groundsmoke
Ericameria nauseosa	Gray rabbitbrush	*Lactuca serriola*	Prickly lettuce
Linanthus pungens	Granite prickly phlox	*Lithospermum ruderale*	Western stoneseed
Philadelphus lewisii	Syringa	*Mentzelia albicaulis*	White-stemmed mentzelia
Purshia tridentata	Antelope bitterbrush	*Penstemon deustus*	Hot-rock penstemon
Ribes cereum	Wax currant	*Phacelia hastata*	Silverleaf phacelia
Symphoricarpos rotundifolius	Mountain snowberry	*Senecio integerrimus*	Western groundsel
Forbs		*Viola* sp.	Violet
Boechera retrofracta	Rockcress	**Graminoids**	
Boechera sp.	Rockcress	*Achnatherum hymenoides*	Indian ricegrass
Brickellia grandiflora	Large-flowered brickellbush	*Achnatherum occidentale* var. *pubescens*	Western needlegrass
Calyptridium roseum	Rosy pussypaws	*Achnatherum pinetorum*	Pinewoods needlegrass
Chaenactis douglasii var. *douglasii*	Hoary chaenactis	*Bromus japonicus*	Japanese brome
Chondrilla juncea	Rush skeletonweed	*Bromus tectorum*	Cheatgrass
Cirsium inamoenum	Greene's thistle	*Elymus elymoides*	Bottlebrush squirreltail
Collinsia parviflora	Maiden blue-eyed Mary	*Leymus cinereus*	Great Basin wildrye
Crepis acuminata	Tapertip hawksbeard	*Poa secunda*	Sandberg bluegrass
Cryptantha torreyana	Torrey's cryptantha	*Pseudoroegneria spicata*	Bluebunch wheatgrass
Cymopterus terebinthus	Turpentine spring-parsley	*Thinopyrum intermedium*	Intermediate wheatgrass
Delphinium andersonii	Anderson's larkspur	**Bryophytes**	
Dieteria canescens	Hoary aster	*Grimmia* sp.	Grimmia moss
Diplacus nanus	Dwarf purple monkeyflower	*Syntrichia* sp.	Syntrichia moss

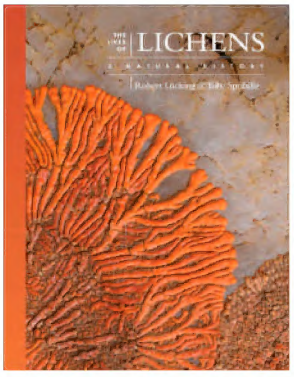
area were dead or in serious decline as evidenced by multiple dead stems and brown needles. Drought is likely the leading factor for their demise, with mistletoe another probable contributing factor for at least some trees.

The lava fields of Craters of the Moon were formed by volcanic eruptions emanating from the Great Rift, a 52-mile gash in the earth's crust. Eruptive periods began roughly 15,000 years ago and did not finish until approximately 2000 years ago. Our plant survey area abutted the North Crater Flow, formed during the most recent eruptive period. This flow contains areas with Blue Dragon lava, with its stunning bluish hue. The volcanic landscape added a geology lesson to our botanical survey. Many people are surprised to learn that Craters of the Moon supports more than 700 plant species. We observed approximately 15% of them during a survey of only a few acres. We thank Sara Ihrie for inviting INPS to assist with the plant survey and hope we can collaborate again in the future. •

Book Review

The Lives of Lichens, A Natural History

By Roger Rosentreter, Pahove Chapter



This book has great photos and is easy reading. Not a lot of science jargon. Get it for a coffee table book just for the photos.

Lücking, Robert and Spribille, Toby (2024) *The Lives of Lichens. A Natural History*. 150 pages + color illustrations, Princeton University Press, ISBN: 9780691247281, Price: $35.00/£30.00, ebook: Sale Price: $24.50/£21.00. "The Lives of Lichens is a richly illustrated guide to lichens and their biology. Blending stunning macrophotography and graphics with in-depth coverage of profiled species, *The Lives of Lichens* provides an unforgettable tour of the marvellous world of these peculiar organisms."

Further information is available here:
https://press.princeton.edu/books/hardcover/9780691247274/the-lives-of-lichens

Team Caterpiller *continued from Page 5...*

Acknowledgements

None of this field work would have occurred had it not been via Anne's long-time eastern Sierra, California friendship with Leslie Goethals whose recent fascination with moths facilitated her connection to David Wagner. That connection led to the development of an Idaho BLM research grant in 2022 funded by the BLM's National Plant Conservation and Restoration program led by Peggy Olwell. Since Anne Halford retired as the BLM Idaho State Botanist in December 2023, the grant is now being administered by Ethan Ellsworth, the BLM Idaho State Wildlife Biologist who was instrumental in organizing this year's housing logistics. •

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Wagner, David, Eliza M.Grames, Mathew L. Forister, David Stopak. 2021. Insect decline in the Anthropocene: Death by a thousand cuts. PNAS 118 (2) e2023989118. https://doi.org/10.1073/pnas.2023989118

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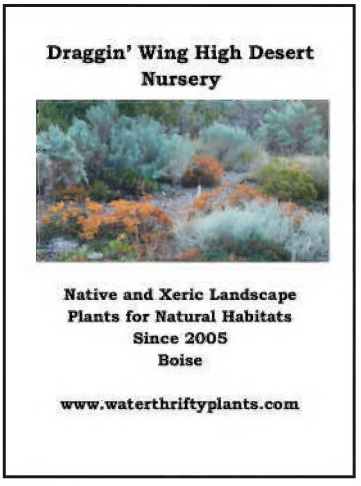

CALYPSO CHAPTER

Public is invited to all chapter activities. All chapter activities are subject to change—watch chapter emails for updates. Contact Derek to be added to email list.

When: The next chapter meeting will be October 2 at 7:00 pm. Chapter meetings are held on the first Wednesday evenings of March, April, May, and October.

Where: Meetings will be held in the IDFG Hunter Education Building, 2885 W Kathleen Ave, Coeur d'Alene.

Contact: For more information about Calypso Chapter activities, contact Derek Antonelli: ds.ca.antonelli@gmail.com, (208) 691-1070.

Upcoming Events

October 2: Calypso Chapter meeting, 7:00 pm. The presentation topic for this meeting has not been determined yet. Please submit topic suggestions.

North Idaho Rare Plant Working Group Meetings: There will be a series of meetings this fall where botanist and other interested participants discuss the status of potential rare plants in northern Idaho. These meetings usually last two or three hours and are conducted by Zoom. If are interested in participating or just listening in, you can contact Derek for information or an invite.

LOASA CHAPTER

When: Regular meetings are held on the third Thursday of each month.

Where: TBD

Contact: For more information about Loasa Chapter activities, please contact Samuel DeGrey: sdegrey@uidaho.edu, (208) 320-0005

PAHOVE CHAPTER

When: We bring you knowledgeable speakers with fascinating presentations on the second Tuesday of each month from October–April starting at 7:00 pm at the MK Nature Center. Times, dates, and topics are tentative. Current information will be sent to members via email. Announcements are also posted on the Pahove Chapter page of the INPS website: https://idahonativeplants.org/pahove/

Where: Chapter presentations currently offer hybrid viewing formats, both in-person at MK Nature Center, 401 S Walnut St, Boise, and a Zoom link for at-home enjoyment.

Contact: For more information about Pahove Chapter activities visit the website: www.idahonativeplants.org or email Karie Pappani at pahove.chapter.president@gmail.com.

Upcoming Events

October 8: Ann DeBolt will speak about the Mud Flat Oolite Area. (BLM public comment period is open. See page 15.)

November 12: Cheri Clausen will speak about her ERIG project, "Weiser Depot Landscaping."

December 10: Shawn Taylor will speak on "iNaturalist for Botanists, Citizen Science."

SAWABI CHAPTER

We welcome the public to our chapter's informative spring programs and warm weather plant walks.

When: All plant walks and spring programs are no longer prescheduled but will be announced via email.

Where: Spring programs are presented in Pond Student Union Building classrooms, ISU Campus, Pocatello.

Contact: For more information contact Paul Allen 208-241-5265 or pokyallen@hotmail.com

WHITE PINE CHAPTER

When: Meetings are typically held the third Thursday of the month, September through April. Current information is posted on our chapter webpage: https://www.whitepineinps.org/WPschedule.html

Where: Meetings are held in-person in the 1912 Center Lecompte Auditorium (2nd floor) in Moscow. Video recordings of meetings will be made available on our YouTube Channel a few days after each meeting.

Contact: For more information about White Pine Chapter activities, contact us at INPS, White Pine Chapter, PO Box 8481, Moscow, ID 83843 or whitepine.chapter@gmail.com. Visit the chapter website (https://www.whitepineinps.org/) for upcoming event information and visit our chapter YouTube channel (@whitepinechapterinps9555) for video recordings of past talks.

Upcoming Events

Stay tuned to chapter webpage for info on our fall meetings.

WOOD RIVER CHAPTER

When: Typically we have talks in the cold months and walks in the warm ones. Non-members are welcome. Please see our website or email newsletter for information on all programs.

Where: Field trip and talk locations and details will be included with the description, posted online and emailed to members and other interested parties.

Contact: For more information about Wood River Chapter activities: email: woodriverinps@gmail.com; website: https://woodriverinps.wixsite.com/wrinps; phone: Mary (559) 696-9953. To subscribe to our newsletter, email the above address.

Upcoming Events

September 7: Trail Creek Beaver Ponds and Wetlands. Have you explored this area? Let's talk about beavers' role in

ecosystems plus plants' adaptations for wet feet. Rated medium difficulty for possible soggy areas. Poles could be helpful. Meet at Hailey Park and Ride (River X Bullion Sts) in time to leave at 9am MT or else at the Hemingway Memorial parking area on Sun Valley Road to leave at 9:30 am.

October/November TBA: We are working on a possible visit to Ironwood Mycology's facility in Richfield to learn about fungi and their commercial cultivation.

October 12: The Big Ass Aspen Trip. Have you visited the huge record-sized aspen trees by the sheep camp on Fish Creek Road near Craters of the Moon National Monument and Preserve? Let's meet at Hailey Park and Ride lot (River X Bullion Sts) to leave at 9:30 am, or else at Silver Creek Store in Picabo to leave by 10:00 am. We can finish up our day with a beverage at the Store.

December 8: Time for the annual meeting, potluck and election of officers for 2025. There will be some fun to be had also in the form of games, prizes and flower slides. 6:00-8:00 pm at Town Center West (Croy X River Sts, Hailey). •

News Release

BLM Seeks Input on Protections for Rare Plants and Fossils at Mud Flat Oolite Site

BOISE, Idaho—The Bureau of Land Management (BLM) is seeking public comments on a proposed withdrawal that would protect 1,958 acres of public lands within the Mud Flat Oolite Site near the City of Grand View in Owyhee County. If approved, the withdrawal would protect rare plants and fossils in the area for 50 years from location and entry under the U.S. mining laws, but not from leasing under the mineral and geothermal leasing laws or disposal under the Mineral Materials Act of 1947.

The site is known for its unique geologic formations. Ooids (OO-ids), or tiny round pieces of limestone, are called oolite ("egg stone") when deposited in larger formations. The site's Shoofly oolite is one of the world's largest freshwater oolites and provides a unique soil that supports a high density of rare plants, as well as fossils from the prehistoric Lake Idaho.

"Withdrawing these lands from mining activity is the best way to protect Idaho's rare plants and fossils," said BLM Boise Acting District Manager Jon Beck. "These protections will help preserve Idaho's unique natural features that took millions of years to form."

A Notice of Proposed Withdrawal and Opportunity for Public Meeting will publish in the Federal Register to open the public comment period and protect the lands from mining, subject to valid existing rights, for up to two years while BLM processes the withdrawal application.

Comments and requests for a public meeting may be emailed to BLM_ID_LLID933000_Withdrawal@blm.gov (preferred) or delivered to: BLM Idaho State Office, Attn: ID-933-Realty/Mud Flat Oolite Site Withdrawal, 1387 S. Vinnell Way, Boise, ID 83709. The comment period closes **Nov. 4, 2024**. For more information, please contact Christine Sloand at csloand@blm.gov or 208-373-4000. •

BLM Boise District Office
Media Contact: Heather Appelhof, 208-384-3388 or happelhof@blm.gov
Aug. 5, 2024

Announcement

INPS Needs a New Treasurer

INPS is in need of a new Treasurer, as this Board position is currently vacant. This position is vital for INPS to function properly and maintain its sound financial footing. The Treasurer is responsible for processing and depositing payments received through the mail or website and writing and sending checks for INPS payments. Both of these tasks require a degree of regular attention. Reconciling the monthly bank statement is a monthly task. Quarterly, the Treasurer is responsible for preparing a summary financial statement for review by the INPS Board, compiling the Idaho State tax report, paying dues to INPS Chapters, and sending in payments associated with the *Sage Notes* newsletter. Completing the INPS Tax Return (990) and the Secretary of State Renewal are annual responsibilities. The Treasurer is also involved with making payments and recordkeeping for the ERIG and Scholarship programs sponsored by INPS, and helping with transactions associated with the biennial Idaho Rare Plant Conference. Someone with an accounting/bookkeeping background would be well-suited for the position. All INPS Board positions run for two years, at which time they are up for re-election. Please contact me if you are interested in the INPS Treasurer position, or have questions about it (president@idahonativeplants.org). Outgoing Treasurer Karen Getusky will be available to help the new Treasurer transition into the position.

~ Michael Mancuso, INPS President

IDAHO NATIVE PLANT SOCIETY
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Idaho Native Plant Society Membership Form

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□ Pahove (Boise)
□ Sawabi (Pocatello)
□ Upper Snake (Idaho Falls) - *Inactive*
□ White Pine (Moscow)
□ Wood River (Ketchum/Sun Valley)
□ No Chapter

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□ Student $10
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□ Household $25
□ Household-Senior $25
□ Sustaining $40
□ Patron $100+

Please indicate if your membership is: □ New □ Renewal
I would prefer to receive ***Sage Notes***: □ Print □ Electronic □ Both

Send completed form and full remittance to:
Idaho Native Plant Society, P.O. Box 9451, Boise, ID 83707

Memberships run calendar year. New memberships enrolled after June 1 include the following year. ***Renew or join online:*** https://idahonativeplants.org/membership/

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